City of Lincoln.

URBAN SANITARY AUTHORITY.

ANNUAL REPORT

OF

THE MEDICAL OFFICERS OF HEALTH

For the Year 1908.

LINCOLN:

W. K. Morton & Sons, Ltd., "Chronicle" Office, 290, High Street.

1909.

CITY OF LINCOLN.

ANNUAL HEALTH REPORT FOR 1908.

BY

CHARLES HARRISON, M.D., D.P.H., Medical Officer of Health,

AND

C. J. COLEMAN, M.D., D.P.H., Deputy Medical Officer of Health.

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Matron of the City Hospital:

Miss A. BEARD.

Health Department,
Corporation Offices,
Lincoln.
May, 1909.

TO THE COUNCIL OF THE CITY OF LINCOLN.

Mr. Mayor and Gentlemen,

We have the honour to submit to you our report on the Health and Sanitary condition of Lincoln during 1908.

The BIRTH-RATE was 24.9 per 1,000, the DEATH-RATE 13.5 per 1,000, the ZYMOTIC MORTALITY .832 per 1,000, and the INFANTILE MORTALITY 93.5 per 1,000 births.

Diphtheria has been more prevalent than in 1907.

The incidence of Scarlet Fever has shown a decided decrease compared with the previous year.

The Notification of Births Act came into operation in Lincoln on October 19th.

By kind permission of the Lincoln Infant Health Society the services of their lady health visitor have been obtained for carrying out the necessary visits of inspection at the houses where births have occurred.

Your obedient servants,

CHARLES HARRISON,
C. J. COLEMAN.

POPULATION. Census of 1871 26,766.
,, ,, 1881 37,312.
,, ,, 1891 41,491.
,, ,, 1901 48,784.
Estimated population at the middle of 1908. 54,017.

AREA.—3,891 acres.

DEATHS.—During the year 767 deaths were registered. These, divided into sexes for each quarter, are:—

	Males.	Females.	Total.
1st quarter	113	109	222
2nd ,,	90	92	182
3rd ,,	94	61	155
4th ,,	114	94	208
	411	356	767

This total compares with previous years as follows:—

	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
DEATHS	775	786	790	872	784	769	800	816	962	877	807	767

Fifty-five persons died in the Workhouse, 83 in the County Hospital, five at the Lawn Hospital, one at H.M. Prison, 16 at the City Hospital, and two at the Barracks.

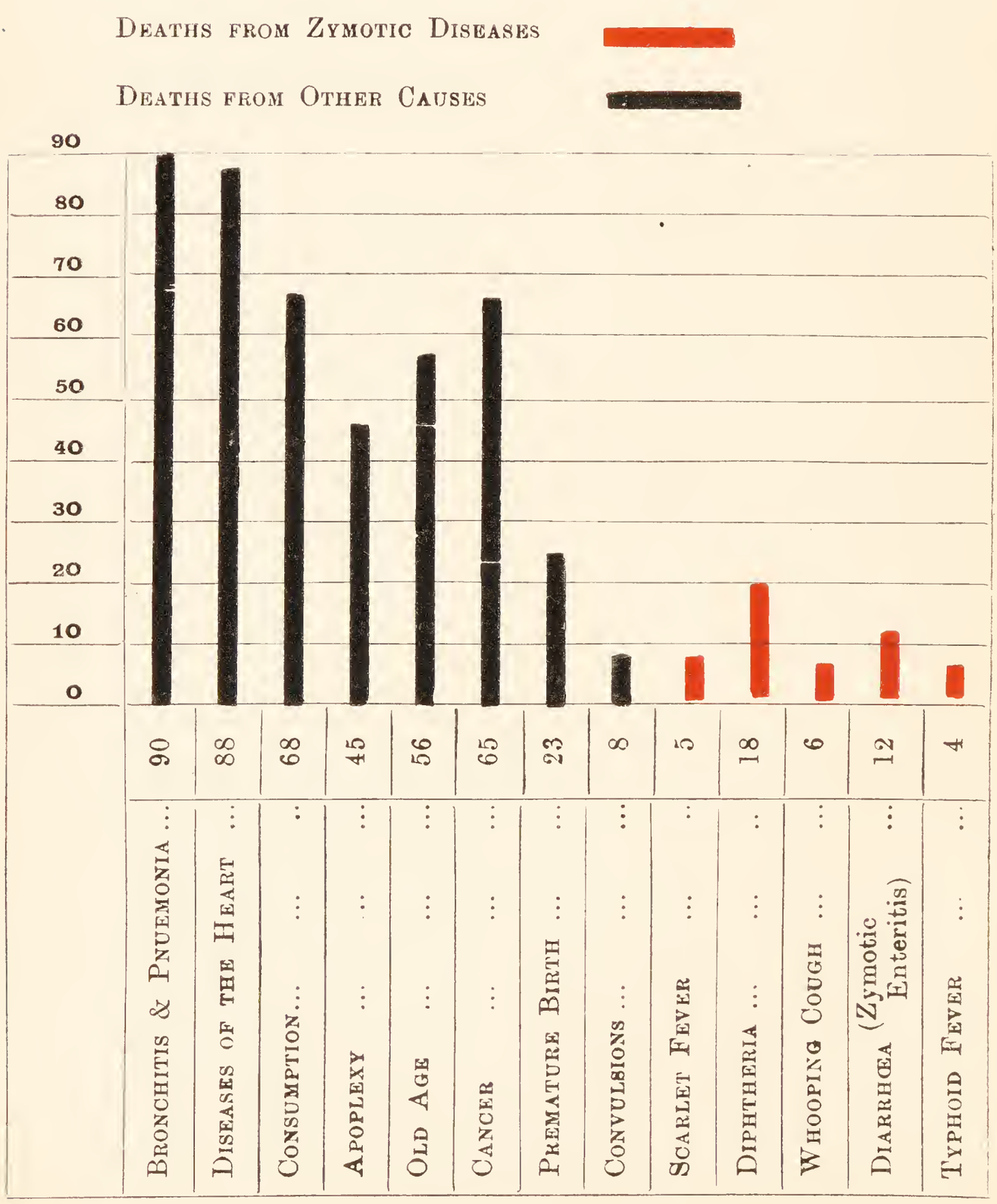
Of the 767 deaths 186 were children under 5 years, of which 126 were infants under 12 months. There were 12 deaths between 90 and 100.

Of the 767 deaths there were:—

Under 1 year	126				30 and under 40 years ...			37
1 and under 5 years	60				40 ,, 50 ,, ...			76
5 ,, 10 ,, ...	30				50 ,, 60 ,, ...			65
10 ,, 15 ,, ...	15				60 ,, 70 ,, ...			125
15 ,, 20 ,, ...	15				70 ,, 80 ,, ...			110
20 ,, 25 ,, ...	20				80 ,, 90 ,, ...			52
25 ,, 30 ,, ...	24				90 ,, 100 ,, ...			12

CHART.

SHEWING THE COMPARATIVE NUMBER OF THE PRINCIPAL CAUSES OF DEATH DURING 1908.



CAUSES OF DEATHS.

Abscess	3
Accident	17
Alcohol	1
Aneurysm	3
Apoplexy	45
Appendicitis	3
Asthenia	1
Asthma	1
Atrophy	2
Bronchitis, Pneumonia and Congestion of Lungs ...	90
Burning	4
Cancer	65
Childbirth	5
Convulsions	8
Croup	1
Debility	13
Dentition	5
Diabetes	7
Diarrhœa	4
Diphtheria	18
Disease of Bladder	6
,, Blood	2
,, Bowel	1
,, Brain	11
,, Ear	1
,, Heart	88
,, Kidney	17
,, Larynx	1
,, Liver	5
,, Ovaries	3
,, Pharynx	1
,, Skin	1
,, Spleen	1
,, Spinal Cord ...	4
,, Stomach	4
,, Uterus	2
,, Veins	1
Drowning	7
Enteritis	6
EnteritisGastro	5
Enteritis Zymotic	12
Epilepsy	1
Erysipelas	1
Fever, Scarlet	5
,, Enteric	4
Found Dead	1
Gangrene	1
Gastritis	1
Gestation	1
Gout	1
Hydrocephalus	1
Inanition	1
Influenza	15
Laryngitis	1
Malformations	3
Marasmus	18
Measles	3
Meningitis	16
,, Tubercular ...	6
Natural Causes...	9
Old Age...	56
Paralysis	8
Peritonitis	7
,, Tubercular ...	3
Phthisis	68
Prematurity	23
Rheumatism	3
Rickets	1
Scalding	2
Scurvy	1
Strangulated Hernia, Intussusception, and Obstruction of Bowels	13
Suicide	2
Stricture	1
Syphilis	2
Tuberculosis	5
Whooping Cough	6
Toxœmia	1

CAUSES OF DEATH UNDER FIVE YEARS.

Abscess	...	...	1
Accident	...	...	3
Asthenia	...	...	1
Atrophy	...	...	2
Bronchitis, Pneumonia, and Congestion of Lungs	...		10
Burning	...	...	1
Convulsions	...	...	8
Croup	...	...	2
Debility	...	...	13
Dentition	...	...	5
Diarrhœa	...	...	4
Diphtheria	...	...	6
Disease of Ear	...	...	1
,, Heart	...	...	2
Enteritis	...	...	5
,, Gastro	...	...	5
,, Zymotic	...	...	12
Fever, Scarlet	...	...	3
Erysipelas	...	...	1
Hydrocephalus	...	...	1
Inanition	...	...	2
Jaundice	...	...	1
Laryngitis	...	...	1
Malformations	...	...	3
Marasmus	...	...	9
Measles	...	...	2
Meningitis	...	...	9
,, Tubercular	...	...	2
Natural Causes	...	...	4
Peritonitis	...	...	4
,, Tubercular	...	...	2
Phthisis	...	...	3
Prematurity	...	...	23
Rickets	...	...	1
Scalding	...	...	1
Scurvy	...	...	1
Strangulated Hernia, Intussusception, and Obstruction of Bowels	...	...	3
Syphilis	...	...	1
Tuberculosis	...	...	2
Whooping Cough	...	...	6

CAUSES OF DEATH UNDER ONE YEAR.

Accident	...	...	1
Asthenia	...	...	1
Atrophy	...	...	2
Bronchitis, Pneumonia, and Congestion of Lungs	...		14
Convulsions	...	...	6
Debility	...	...	13
Dentition	...	...	5
Diarrhœa	...	...	3
Disease of Ear	...	...	1
,, Stomach	...	...	1
,, Heart	...	...	2
Enteritis	...	...	4
,, Gastro	...	...	4
,, Zymotic	...	...	11
Erysipelas	...	...	1
Fever, Scarlet	...	...	1
Inanition	...	...	2
Jaundice	...	...	1
Malformations	...	...	3
Marasmus	...	...	9
Meningitis	...	...	6
,, Tubercular	...		1
Natural Causes	...	...	3
Peritonitis	...	...	4
Phthisis	...	...	1
Prematurity	...	...	23
Rickets	...	...	1
Scurvy	...	...	1
Strangulated Hernia, Intussusception and Obstruction of Bowels	...	...	2
Syphilis	...	...	1
Whooping Cough	...	...	4

Ninety deaths from Inflammatory Diseases of the Respiratory Organs were registered, equal to 13 per cent of the total deaths, 73 from Heart Disease, equal to 11.5 per cent., and 68 from Phthisis, equal to 8.8 per cent.

In calculating the death rate, the deaths in the public institutions of inmates who do not belong to Lincoln were deducted from the total number, and the deaths of Lincoln people, known to have died in public institutions outside the City, have been added to the number of Lincoln deaths.

Thus we have excluded 58 deaths, and have included 21 deaths of Lincoln people who have died in other districts. This leaves a balance of 37 deaths to be substracted from the total of 767 giving 730, which is equivalent to a death rate of 13.5 per 1,000.

To obtain a corrected death rate it is necessary to multiply this figure by a factor which takes into account the differences of age and sex distribution in the City of Lincoln when compared with the whole of England and Wales.

We reprint from the 1907 Annual Report a portion of the letter received from the Registrar General on the subject of correcting the death rate.

"The mean death rates for England and Wales (1891-1900) at certain age groups are applied to the census populations at the corresponding age groups in the City of Lincoln. The sum of the results gives the number of deaths that would have occurred had the mortality in each sex and age group been the same as that in England and Wales as a whole. The death rate based on this aggregate number of deaths is called the "Standard Rate." The difference between this standard death rate for the City and the mean rate for the whole country is due to differences of sex and age constitution of the population; and the quotient obtained by dividing the death rate in England and Wales by the standard death rate gives a multiplier called the factor for correction, which when applied to the crude death rate in the City in any given year will eliminate a large proportion of the error due to difference in sex and age distribution."

This factor in the case of Lincoln is 1.0273.

The corrected death rate is therefore 13.5 multiplied by 1.0272 or 13.87 per 1,000.

The corrected death rate for England and Wales in 1908 was 14.7 per 1000, which is lower than any other year on record.

It is satisfactory that the death rate for Lincoln is considerably lower than this.

DEATHS OF ILLEGITIMATE CHILDREN. The Registrar has supplied us with details of illegitimate births, and deaths of illegitimate children. 79 illegitimate children were born during that time and 17 illegitimate children died. The sex, age and causes of death are as follows:

Sex.	Age.	Cause of Death.
Male	6 mths.	Convulsions
,,	1 hour	Prem. Birth
,,	2 yrs.	Convulsions
,,	3 mins.	Weakness due to Prem. Birth
,,	8 mths.	Marasmus Heart
,,	3 yrs.	Diphtheria
,,	6 mths.	Convulsions
Female	5 mths.	Convulsions
,,	10 mths.	Scurvy & Purpura Hœmorrhagia, wasting.
,,	1 mth.	Prem. Birth
,,	1 year	Bronchitis Pneumonia
,,	2 mths.	Bronchitis Exhaustion
,,	12 yrs.	Accidental Burning
,,	10 yrs.	Appendicitis, General Paralysis
,,	8 mths.	Erysipelas
,,	10 mths.	Tubercular Peritonitis
,,	1 mth.	Inanition

INFANTILE MORTALITY. During the year, 126 deaths occurred in infants under 12 months of age, giving a mortality of 93.5 per 1,000 births. This is a very satisfactory figure, being considerably less than in 1907.

Fourteen deaths were caused by Diarrhœa and Zymotic Enteritis. As the total rainfall in 1908 was considerably less than the preceding year, this number is by no means excessive.

It cannot be emphasized too strongly that improper storage and contamination of milk in hot weather is the source of much of the infantile diarrhœal diseases.

Prematurity, Inanition, Atrophy, Debility and Malformations caused the death of 43 infants. These causes may be considered among the less preventable.

Some other important causes of death were:—

Convulsions, Dentition, Meningitis, Marasmus and Whooping Cough.

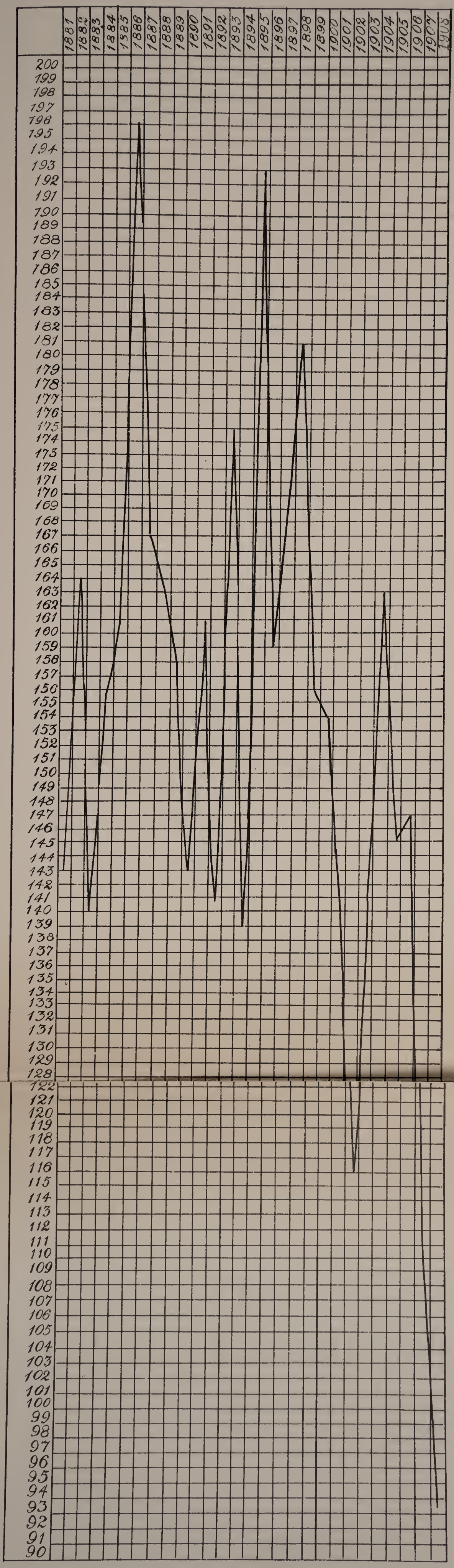
The deaths of infants under one year have been investigated by Inspector Bennett until November last, when the work was taken over by Miss Charlesworth, the Health Visitor. The information received is tabulated below. In future it is hoped that the work done under the Notification of Births Act will provide still further data than have previously been obtainable.

Number of cases visited	95
Natural Feeding	28
Artificial Feeding	34
Mixed	27
Long Tube bottles	25
Patent Foods used	10

Chart shewing the rates of Infantile mortality.

in Lincoln in the successive years between

1881 & 1908.



The Notification of Births Act is an adoptive Act, and has for a primary object the reduction of Infantile Mortality.

Under this Act all births must be notified within 36 hours to the Medical Officer of Health.

In Lincoln, on receipt of such notification, visits are paid by Miss Charlesworth, the Health Visitor, to the homes, and advice given on the rearing and feeding of infants according to the instructions of the Medical Officers of Health.

A printed card on this subject is left at discretion after verbal advice from the Health Visitor. The method is found to work well and no instance has been brought forward in which the visits have been resented. A copy of this card is given below.

CITY OF LINCOLN.

ADVICE ON INFANT FEEDING.

It should always be remembered that mother's milk is the only perfect food for infants, therefore, a mother should always try to suckle her child. In order to do this in the best way, she must:—

1. Keep herself as healthy as possible; take simple and wholesome food, and avoid all beer, stout, wine and spirit.
2. Feed her child at definite times by the clock, and not by guess-work, slowly and never for more than twenty minutes at a time.
3. Feed the infant during the first and second month, every two hours during the day, and twice only during the night, and from the third to ninth month every three hours during the day, and not more than once during the night.
4. Wash the nipples with warm water, and carefully dry them after each feeding, and anoint them occasionally with glycerine and borax, or some simple ointment; this prevents cracks, which often lead to abscesses.
5. Wash the baby's mouth well with rag dipped in warm water, after each feeding, and occasionally with glycerine and borax, this prevents "frog" and sore nipples.
6. Wean the child when it is nine months old (prolonged suckling is no safeguard against pregnancy, it always weakens the mother, and generally weakens the child).

Note.—Too frequent feeding is the chief cause of crying, indigestion and constipation in breast fed infants.

If a baby cannot have its mother's milk, the next best food is cow's milk, diluted with water or barley water; this is much better than condensed milk or infants' food.

The following table gives the quantities suitable for a healthy baby:—

Age.	Milk.	Water or Barley Water	Cream.	Sugar.	Should be Fed.
During	Tablespoons.	Tablespoons.	Teaspoonful.	Small lump.	Every
1st Fortnight.	1	2	½	,,	2 hours
2nd ,,	1½	3	1	,,	2 ,,
2nd Month.	2	3	1	,,	2¼—2½ ,,
3rd ,,	4	4	1	1 lump.	3 ,,
4th ,,	5	4	1½	2 lumps.	3 ,,
5th ,,	6	4	2	2 ,,	3 ,,
6th ,,	7	4	2	2 ,,	3 ,,
7th ,,	9	4	2	2 ,,	3 ,,
9th ,,	12	4	2	2 ,,	3 ,,

Cream.—It is very important to add this, but if it is not possible to add it as often as you would like, so whenever possible; or give cod liver oil, salad oil, or a small quantity of fresh butter, separately in a spoon. It helps to prevent constipation, which is so common in bottle fed babies.

The Bottle should be boat shaped, it is dangerous to use long tubed feeding bottles; they are a fruitful source of diarrhœa, and frequently cause wind and "Frog."

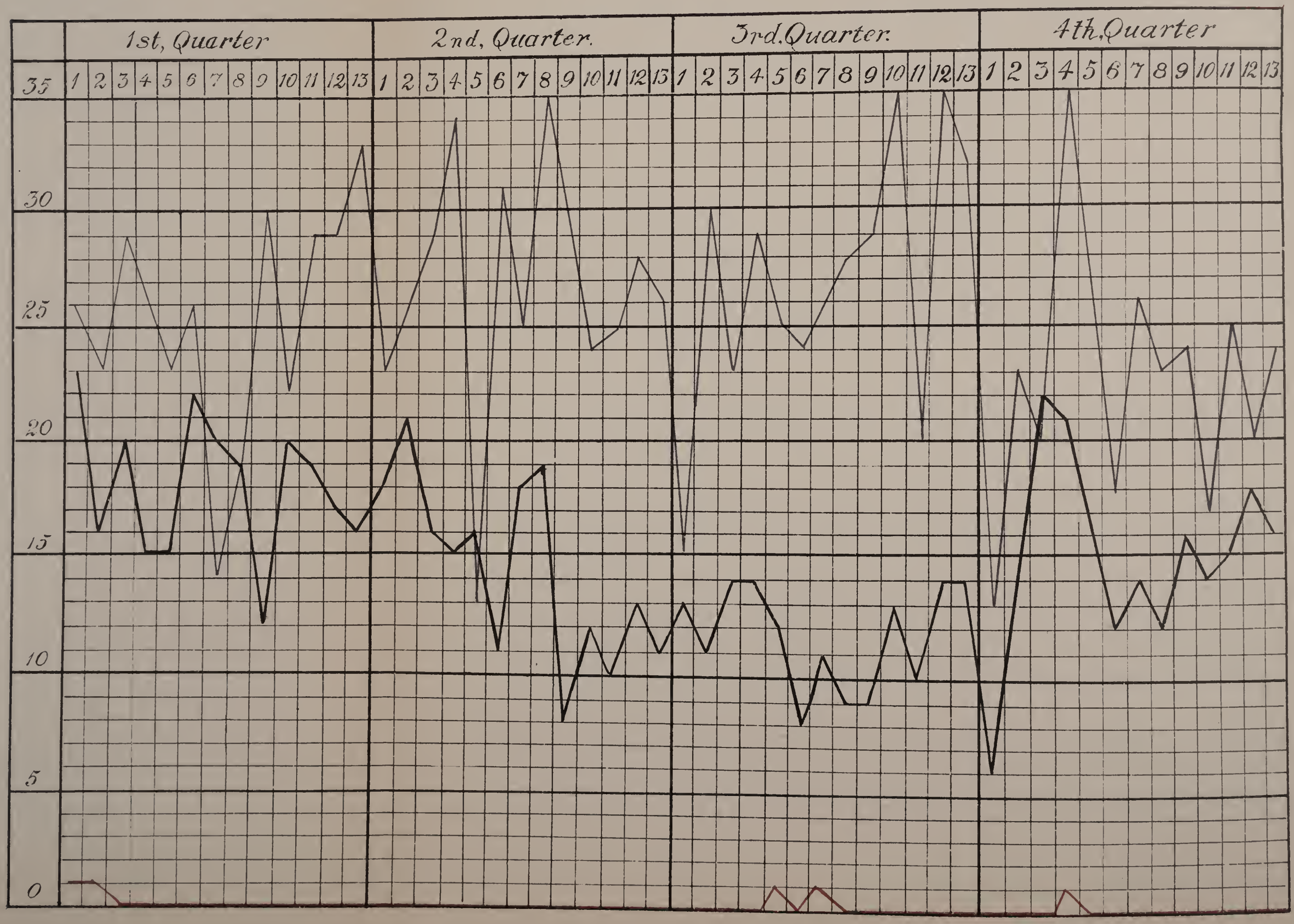
Both the bottle and the teat should be thoroughly cleaned and scalded after being used, and kept in clean cold water until it is wanted again.

The Milk should be bought twice daily, and boiled immediately. It should be kept in a clean jug, covered with a clean cloth, and kept in a cool place, or standing in a vessel of cold water. The baby should spend at least ten minutes over its bottle, and, if any food is left over, it should not be saved for the next meal.

Barley Water should be made twice a day as it turns sour quickly. The best way to make it is to pour one pint of boiling water on to one teaspoonful of pearl barley, let it stand in warm place for half-an-hour, then strain.

Chart shewing the Number of Births and Deaths registered Weekly during 1908, and the Deaths from Diarrhœa.

Births. ——
Deaths ——
Diarrhœa ——



Never give babies boiled bread, sop, rusks, or anything but liquid food, until they are at least eight months old. After that age, if teeth are present, they may begin to have bread and milk, then bread and butter, and biscuits. After ten months, broth, milk puddings, eggs and fish (if quite fresh) may be given.

Never give sleeping powders or syrups.

C. J. COLEMAN,

Deputy Medical Officer of Health.

BIRTHS. During the year 1,348 births were registered. These divided into sexes for each quarter of the year as as follows:—

	Males.	Females.	Total.
1st quarter	166	153	319
2nd ,, ...	185	182	367
3rd ,, ...	191	163	354
4th ,, ...	156	152	308
	698	650	1348

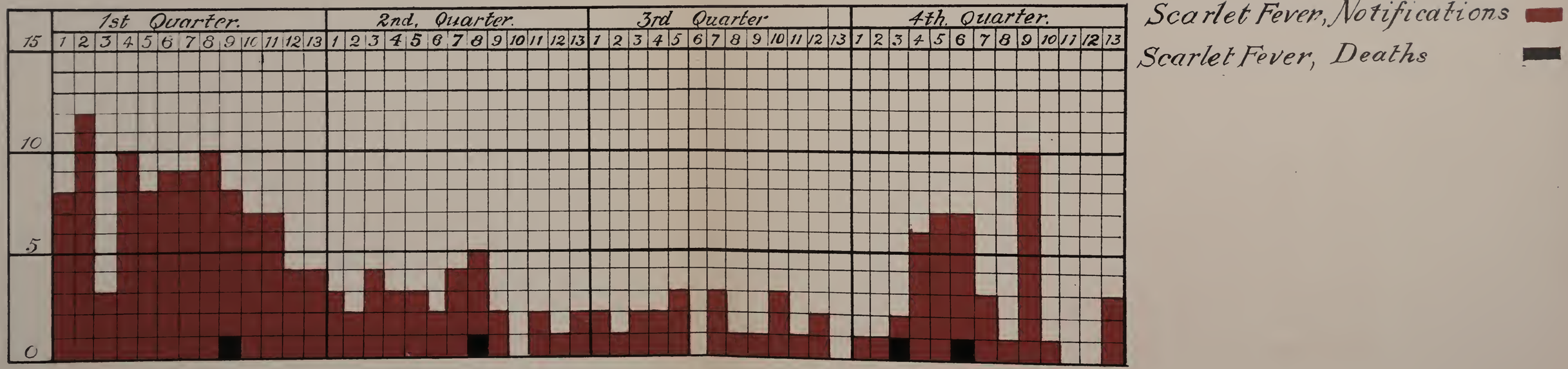
The birthrate for the year was 24.9 per 1000. This is slightly better than in 1907, but considerably worse than 1906 when the birth rate was 26.8 per 1000. The birth rate for England and Wales in 1908 was 26.5 per 1000, or 1.7 per 1000 higher than in Lincoln. The decline in the general birth rate of the whole country has been referred to in our previous report for 1907, in which year the rate was lower than any other year on record, viz., 26.3 per 1000. There has been a slight rise in the birth rate during the past year.

1908.	Annual rates per 1,000 living.			Infant Mortality per 1,000 births.
	Births.	Deaths.	Zymotic Death-rate.	
England and Wales ...	26·5	14·7	1·29	121
Rural England and Wales	26·2	14·7	·99	110
76 Great Towns	27·0	14·9	1·59	128
142 Small Towns ...	26·0	14·0	1·26	124
City of Lincoln	24·91	13·87	·832	93·5

TABLE SHOWING NUMBER OF CASES OF INFECTIOUS DISEASE NOTIFIED DURING EACH MONTH, AND TOTAL FOR 1908.

1908.	Erysipelas.	Small Pox.	Scarlet Fever.	Diphtheria & M. Croup.	Enteric Fever.	Puerperal Fever.	Total for Month.
January	6	...	32	8	1	...	47
February	7	...	35	6	3	...	56
March	2	...	26	7	...	...	35
April	3	...	13	1	...	...	17
May	3	...	12	7	...	...	22
June	5	...	9	13	...	...	27
July	4	...	6	7	...	...	15
August	2	...	7	4	4	...	17
September	5	...	8	14	5	...	32
October	2	...	4	24	2	...	32
November	...	...	15	27	3	1	45
December	6	...	21	29	4	...	60
Total 1908	45	...	188	147	22	1	405
1907	30	...	553	102	17	1	703

Chart shewing the number of cases of Scarlet Fever notified weekly during 1908, and Deaths from same.



SCARLET FEVER has shown a very considerable decrease during the year, 188 cases were notified as compared with 553 in 1907.

The number of notifications in each year since 1900 are given below:—

1900	...	441	1903	...	141	1906	...	137
1901	...	480	1904	...	250	1907	...	553
1902	...	203	1905	...	189	1908	...	188

The age and sex distribution of the notified cases is as follows:—

Age.		Male.		Female.
1-5 years	...	26	...	33
6-10 ,,	...	30	...	44
11-15 ,,	...	14	...	12
16-20 ,,	...	4	...	11
21-25 ,,	...	7	...	2
26-30 ,,	...	1	...	2
over 30 ,,	...	1	...	1
		83		105

Of the 188 cases notified 69 or 36.7 per cent. were removed to the Hospital. 4 deaths from Scarlet Fever were registered during the year giving a case mortality of 2.1 per cent.

Scarlet Fever is a disease which varies very considerably with regard to its incidence, epidemics being followed by longer or shorter inter-epidemic periods.

Dr. Freemantle, County Medical Officer of Health for Hertfordshire,* has laid stress upon the rhythmical prevalence of Scarlet Fever, which rises and falls, not only with the seasons in any one year, but also over a series of years. He described a thirty years swell, a five year wave, and a seasonal ripple. Thus Scarlet Fever was specially prevalent (and malignant) in the years 1801-4, 1834, 1861-70, and 1900-2. Such rhythmical prevalence being recognised, it becomes possible to forecast the behaviour and probable amount of Scarlet Fever in any given year.

At any rate Dr. Freemantle rightly predicted an increase in Hertfordshire of notifications of Scarlet Fever in the years 1906 and 1907, and ventured to predict that the chances were against any increase this year (1908) in the County generally, though emphasising the need of precautions being taken in a particular part of the County, which had not yet undergone its periodic rise in the incidence of Scarlet Fever.

*Annual Report for Hertfordshire for the year 1907.

It stands to reason that every epidemic must result in a large proportion of the inflammable material—in other words—the suspectible children—being rendered insusceptible or non-inflammable. But the inflammable material is gradually replenished, in the course of five years, by a new generation to such an extent as to make the five-yearly wave appreciable.

The thirty-yearly swell is less easy of explanation, though possibly it may be partly due to the fact that persons of susceptible age are entirely a new generation, as compared with thirty years previously.

DIPHTHERIA has been more prevalent than in 1907, especially during the last quarter of the year.

The total notifications compare with previous years as follows:—

1901	... 27		1904	... 90
1902	... 23		1905	... 190
1903	... 29		1906	... 279
		1907 ... 102		
		1908 ... 152		

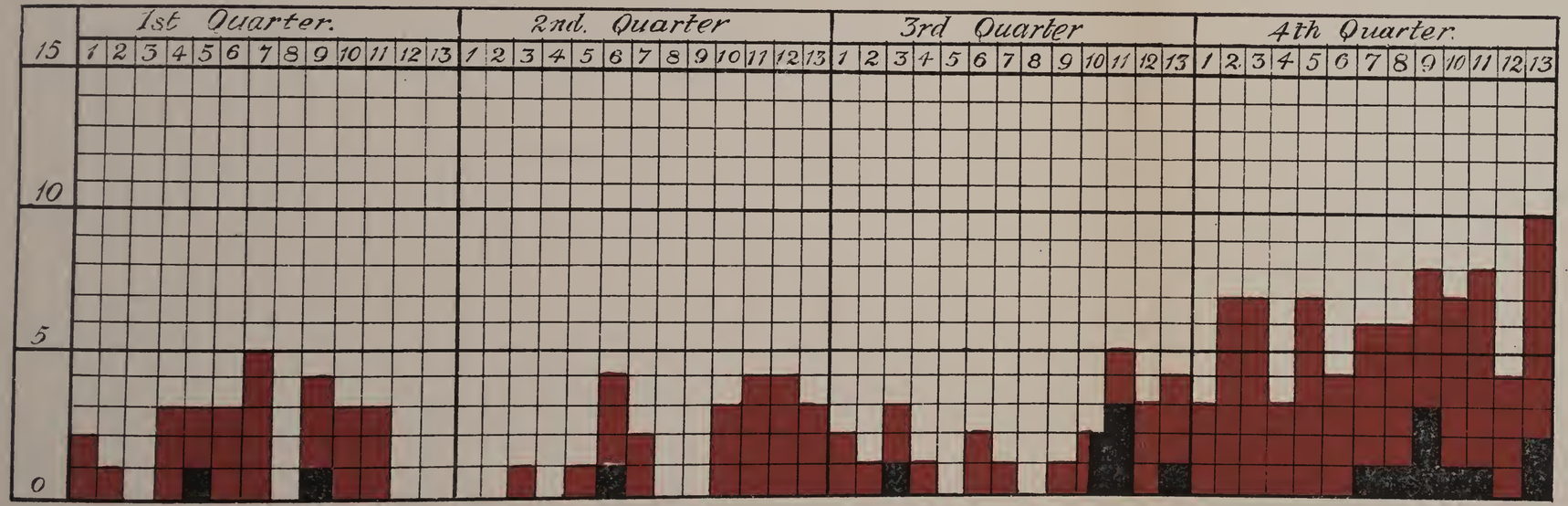
The monthly and weekly incidence are seen on reference to page 14 and the chart facing page 16 respectively.

The age and sex of the notified cases and of the deaths are as follows:—

Age.	Notified Cases.		Deaths.	
	Male.	Female.	Male.	Female.
1—5	19	23	7	6
6—10	21	38	5	...
11—15	13	16	...	1
16—20	1	2	...	...
21—25	2	1	...	...
26—30	1	4	...	...
31—35	2	2	...	...
36—40	...	3	...	...
over 40	1	3	...	...
	60	92	12	7

Chart shewing the Number of Cases of Diphtheria notified Weekly during 1908,

and Deaths from same.



Diphtheria. Notifications.

Diphtheria. Deaths.

Of late years the great importance of "swabbing" all cases of suspicious throats, occurring among children attending elementary schools, has been much emphasised.

It is frequently found on bacteriological examination that children who have not shown any clinical symptoms of Diphtheria, but who have been contacts with others suffering from the disease, have harboured the bacillus of diphtheria in the throat or in the discharges from the nose; such cases are termed "carriers," and are a fruitful source of outbreaks of the disease; they can only be discovered by systematic investigation in the classes of a school from which cases of Diphtheria have been notified. The great difficulty in controlling the spread of the disease is undoubtedly due to the ease with which one of these "carriers" may be overlooked.

Fortunately, the present system of medical inspection of school children has increased the facilities for dealing with these conditions.

We give below a report presented on December 3rd, by the School Medical Officer to the Lincoln Education Committee dealing with an outbreak of Diphtheria in Chaplin Street School.

DR. COLEMAN'S REPORT, DECEMBER 3rd, 1908.

TO THE CHAIRMAN AND MEMBERS OF THE LINCOLN EDUCATION COMMITTEE.

GENTLEMEN,

During the last two months there has been an undue prevalence of Diphtheria at Chaplin Street School.

This school accommodates about 130 scholars, and includes an Infant Department and Standard I and II.

There are three Class rooms, the first being the largest. All three are in communication by doors as there are no intervening corridors. The furthest class room is fitted with benches, but there are no desks, and it is used by different classes during school hours; this entails the movement of children, and there is in consequence a certain amount of contact between the different classes at the time of re-arrangement.

On Sunday these class rooms are used as a Sunday School, many of the Day Scholars also attending the Sunday School. The same class rooms are also, I believe, in occasional use at night for meetings for adults.

During the month of October a series of cases of diphtheria were notified from Standard I, afterwards in November the greater number of cases occurred in the 1st and 2nd Infants Classes.

I visited the school on October 12th and again on October 30th, and November 7th, 18th, and 30th. The absentee lists were examined and all cases of doubtful throat illness visited, and in certain cases swabs of the throat taken.

It was also arranged that separate pens, pencils, &c., should be dealt out to the scholars in order to prevent the same school material being used by different children. The class rooms were thoroughly disinfected from time to time, and the floors and benches and walls scrubbed.

The number of cases still continuing, on Nov. 24th, I examined the throats of all the children in school and arranged to take swabs of 24 of the children who were suffering from some enlargement of the tonsils or whose throats were in any way inflamed.

Pending the result of this bacteriological examination, these children have been temporarily excluded from school.

Since September 26th, 15 cases of diphtheria have been notified in connection with this school.

The most recent case was notified on December 1st, and is now in Hospital; fortunately it does not appear to be a severe one.

In conclusion it is my opinion that the present measures adopted to prevent the disease will be satisfactory, unless any unforseen circumstances arise. stances arises.

I am much indebted to Nurse Hall for her untiring efforts in assisting me to investigate all suspicious cases of sore throat in connection with the school.

ENTERIC FEVER.—Twenty-two cases of Enteric Fever were notified during the year 1908, and 5 deaths were registered from the disease. This number of cases is not excessive and can be looked upon as fairly satisfactory.

A table showing the number of notifications and deaths since 1900 is given below.

	Notifications.	Deaths.
1900	19	6
1901	15	5
1902	12	3
1903	32	4
1904	17	3
1905	1054	131
1906	22	3
1907	17	3
1908	22	5

Sixteen of these cases, or 75 per cent. were removed to the City Hospital. To all cases treated at home, and two suspected cases (when reported to us) we sent Typhoid pails to contain the excreta and urine. The pails were changed daily, and their contents burned at the City Hospital.

The particulars of the individual cases are given below.

	Date of Notif.	San. Conven.	Nuisances.	Remarks.
1.	Jan. 5	W.C.	W.C. Cisterns frozen up.	Patient came home ill in carrier's cart from Dunholme on Dec. 21st. Complained of legs aching, fainting fits all week previous. Died at home.
2.	Feb. 11	Pail	Pump on premises. Sample of Water sent to London. See special report.	4 previous cases at this house. Husband a Cattle Dealer and Milk Seller Nursed at Hospital.
3.	Feb. 19	W.C.	No defects found.	Nursed at home.
4.	Feb. 21	W.C.	No defects found.	Nursed at hospital.
5.	Aug. 11	W.C.	No efficient fall to drains. Vent pipes choked. W.C. defective.	Nursed at hospital.

	Date of Notif.	San. Conven.	Nuisances.	Remarks.
6.	Aug. 14	W.C.	New house. No defects.	Nursed at hospital. Died.
7.	Aug. 22	W.C.	Drains choked. Asphalt defective. No Ashbins.	Was at Cleethorpes on August 8th to 10th. Nursed at Hospital.
8.	Aug. 24	W.C.	Drains choked. Surface of yard bad in places.	Milk Shop. Nursed at Hospital.
9.	Sept. 9	W.C.	No defects.	Nursed at home. Widal reaction negative twice. Died Vent Pipes in neighbourhood clear.
10.	Sept. 9	W.C.	No defects.	Patient visited Grimsby last week in July. Ill a week. In bed September 1st. Nursed at Hospital.
11.	Sept. 11	W.C.	Water stands in passage owing to defective asphalt. Metal ashbin provided.	Nursed at home.
12.	Sept. 15	W.C.	No defects.	New house. Contact with mother of case No. 7.
13.	Sept. 25	W.C.	Drains tested and found defective. Remedied.	Nursed at hospital. Died.
14.	Oct. 1	W.C.	No defects.	Nursed at home. Widal reaction negative twice.
15.	Oct. 15	W.C.	No defects.	Property moderate. Nursed at hospital.
16.	Nov. 11	W.C.	Drains tested and found defective. Remedied.	Nursed at hospital. Died.
17.	Nov. 12	W.C.	No defects.	No suggestions as to origin.

	Date of Notif.	San. Conven.	Nuisances.	Remarks.
18.	Nov. 24	W.C.	No defects.	Property moderate. Nursed at hospital.
19.	Dec. 11	W.C.	No defects.	Property moderate. Nursed at hospital.
20.	Dec. 18	W.C.	Ashpit in dirty state. Drains choked. Yard opened and Drains re-laid.	Probable contact with case No. 19 or 20. Nursed at hospital.
21.	Dec. 23	W.C.	No defects.	Premises moderate. Nursed at hospital. Died. No suggestion as to origin.
22.	Dec. 29	W.C.	Pan defective.	Probable contact with cases No. 19 or 20. Nursed at hospital.

N.B.—The water pipes and fittings are tested at all houses from which cases of Enteric Fever have been notified.

A special feature in connection with cases in Bridge Street calls for comment. There is a yard common to 5 houses, one of which was occupied by the patient. An ash bin was placed there for the reception of the dry refuse of these houses, but was most improperly used by some offender unknown as a receptacle for human excrement. It is very possible that this was the origin of the disease in case No. 22, and also in two cases notified on January 1st and 2nd of the present year. This state of affairs was revealed by careful investigations by the Health Officials, and immediate steps taken to disinfect the ash bin and to prevent a repetition of the occurrence. It is satisfactory to note that the outbreak in connection with these houses immediately ceased. The drains in this yard were found to be defective and were accordingly relaid.

Attention was also paid to the character of the mussels which were hawked on barrows in the Stamp End district. The mussels had been eaten by cases No. 19 and 20. It is well to point out that unless mussel beds are so placed as to be free from sewage contamination, there is great risk to the consumer. A sample of the mussels from the Stamp End district was sent up to Dr. Jacob's laboratories for bacteriological examination. His report showed that a large number of bacilli coli was found, although bacillus typhosus was absent. Unfortunately the presence of bacillus coli points to sewage contamination and therefore these mussels cannot be considered a safe article of diet.

MEASLES.—The disease has been prevalent throughout the year, but has been the cause of three deaths only. Measles is not a notifiable disease, so it is difficult to arrive at the actual number of cases occurring in Lincoln. By the courtesy of Mr. Minton we have information as to the number of scholars in the elementary schools who were absentees for this cause. With the exception of the months of January and February, during which period the lists included "contacts" as well as measles proper, the precise figures are avaliable.

	Boys.	Girls and mixed.	Infants.	Total.
Jan. (measles and contacts) ...	11	44	18	73
Feb. ,, ,, ,, ...	58	25	22	105
Mar. (Measles only)	8	14	72	94
April ,, ,, ...	11	1	4	16
May ,, ,, ...	4	7	43	54
June ,, ,, ...	11	11	83	105
July ,, ,, ...	10	1	11	22
Aug. ,, ,, ...	2	1	1	45
Sept. ,, ,, ...	3	0	42	45
Oct. ,, ,, ...	11	3	66	80
Nov. ,, ,, ...	11	2	30	43
Dec. ,, ,, ...	12	5	49	66

We give below the instructions issued by the Education Committee to parents of school children in houses where measles has broken out.

PREVENTION OF MEASLES.

The attention of householders is particularly directed to the following points:—

1.—Measles is not the harmless disease which it is frequently considered to be; it causes a considerable number of deaths each year, and on that account it behoves parents to pay every attention to sufferers from this disease, and to adopt every precaution against giving the infection to others.

2.—Measles is particularly infectious before the rash appears, and the symptoms of this stage of the disease are coughing, sneezing, redness of the eyes, and a feeling of illness; these symptoms should be sufficient—when Measles is prevalent in a district—to justify a parent in keeping a child so suffering away from school, and isolating the sufferer in a bedroom.

3.—If Measles exists in a house, it is important that the younger members of the family should not be allowed to associate with other children, nor should they be taken to entertainments or allowed to journey in public conveyances.

4.—Anyone attacked by Measles should be placed in a separate room, and kept warm. Other children in the house who have not been attacked by the disease should not go to either Day or Sunday School for at least three weeks after the appearance of the eruption in the first case, and if further cases occur, not until three weeks after the eruption in the last case. The Teacher of the school where the children attend should be at once informed.

5.—Disinfection of the clothing and the sick room will be of benefit, and suitable disinfectants for use in these cases may be had, free of charge, on application to the Health Department, Corporation Offices.

6.—Children suffering from measles must be excluded from school for at least one month.

Children coming from homes in which measles exists must be dealt with as follows:—

(*a*) Children in schools other than Infants' schools who have *not* had the disease, must be excluded from school until the Monday following the expiration of 14 days from the occurrence of the first case.

(*b*) All children in Infants' schools must be excluded from school until the Monday following the expiration of 14 days from the occurrence of the last case.

(*c*) Children in schools other than Infants' schools who have had measles need not be excluded.

WHOOPING COUGH.—Six deaths from this disease were registered during the year. This is a comparatively low figure and compares well with previous years.

PTHISIS.—Sixty-eight deaths from this disease were registered during the year, equal to 8.77 per cent. of total deaths. This is exactly the same number as in 1907, but the percentage on total deaths is slightly higher.

Year.	Phthisis deaths.	Per cent. of total deaths.	Year.	Phthisis deaths.	Per cent. of total deaths.	Year.	Phthisis deaths.	Per cent. of total deaths.
1892	53	6·5	1898	56	7·0	1904	49	6
1893	73	8·8	1899	55	6·9	1905	49	5
1894	46	7·0	1900	60	6·9	1906	51	6
1895	71	8·0	1901	58	7·4	1907	68	8
1896	62	8·6	1902	64	8·3	1908	68	8·77
1897	69	8·9	1903	65	8·1			

Offers are made to disinfect the rooms and also the bedding after a death has occurred. Such offers are nearly always accepted.

Dr. Bulstrode's report on Phthisis to the Local Government Board was dealt with at some length in our annual report for 1907.

There has been a steady decline since 1851 throughout the country in the death rate from Phthisis. We reprint the table of the death rates for the several quinquennia which have elapsed since 1866-1876.

Quinquennia.	Death Rate per 1000.
1866—1870	24·4
1871—1875	22·1
1876—1880	20·4
1881—1885	18·3
1886—1890	16·3
1891—1895	14·5
1896—1900	13·2
1901—1905	12·1

The notification of Phthisis occurring among Poor Law patients has become compulsory since January 1st of the present year, and Health Authorities throughout the country will be called upon to make special provision to meet the requirements of these regulations.

We therefore include the report to the Health Committee made by the Deputy Medical Officer of Health on the memorandum on this subject issued by the Local Government Board.

(Copy of Report.)

HEALTH DEPARTMENT,
CORPORATION OFFICES,
LINCOLN, 8th APRIL, 1909.

TO THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

GENTLEMEN,

I have made a brief epitome of the administrative measures suggested in the memorandum of the Local Government Board re Notification of Phthisis among Poor Law Patients.

On receipt of a notification by the Health Authorities it is suggested that visits should be made by the Medical Officer of Health or capable trained assistants (male or female). The object of these visits will be attained by giving needful advice to the patient as to personal hygiene and enabling measures being taken to prevent the spread of the disease among other members of the household.

It is pointed out in this memorandum that the first and most essential thing is for the doctor in attendance to acquaint the patient with the nature of his illness. This is indispensable if the active co-operation of the patient is to be secured.

Enquiries can also be made as to the conditions of employment under which the consumptive patients work, and such investigations are sometimes indicated.

It is, however, expressly mentioned that:—

"An investigator must not pursue enquiries in a manner or give information that may prevent a consumptive patient from continuing to earn his livelihood."

Revisits by an Inspector or Health Visitor should be made from time to time and reported to the Medical Officer of Health.

I have by me a card containing printed enquiries which has been in use for some time past in Derby in connection with the voluntary notification of Phthisis, and I think that it should meet all our requirements.

Sanitary authorities may provide spit cups or other suitable means for preventing spread of infection, and should also undertake the disinfection of any infected material that may be necessary. They may also cleanse and disinfect any rooms used by a consumptive patient before such rooms are occupied by a fresh tenant; to this end the regulations provide for the notification of any patients change of address to the Health Authorities by Relieving Officers.

Further measures suggested to arrest the spread of the disease are:—

1.—Local Bye Laws to restrict indiscriminate expectoration in public carriages, halls, waiting rooms, etc.

2.—The opening of Sanatoria for suitable patients. It is thought that even a short residence in a sanatorium will educate a consumptive patient in the methods he should adopt to restrict the spread of his malady.

3.—Opening of Tuberculosis Dispensaries.

Such dispensaries would be suitable only in large centres of population. They would aim at the early diagnosis of patients suspected to be suffering from the disease, and would maintain a staff of nurses and health visitors able to carry on the domiciliary visitation and investigation, and in fact become a sub-department of the Medical Officer of Health's work.

In conclusion I may point out that these Tuberculosis Regulations apply to all patients under the care of Poor Law Medical Officers either at home or in Poor Law Institutions.

I am, Gentlemen,

Yours faithfully,

C. J. COLEMAN,

Deputy Medical Officer of Health.

DEATHS FROM ZYMOTIC DISEASES DURING THE PAST TEN YEARS.

	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
Cholera	...	...	...	...	...	...	...	...	..	...
Diarrhœa	52	38	29	5	9	16	13	31	9	12
Diphtheria	1	8	8	1	8	29	37	47	16	18
Enteric Fever	7	6	5	3	4	3	131	3	3	4
Scarlet Fever	4	14	9	6	9	10	7	27	5	
Small Pox	...	...	...	...	...	...	...	...	...	...
Whooping Cough	2	5	18	21	19	16	...	12	14	6
Measles	5	16	3	9	15	...	21	2	2	3

THE CITY HOSPITAL.

197 cases were under treatment at the City Hospital during 1908, 30 of these cases remained in from 1907, and 167 fresh cases were admitted. At the end of 1908 there were 28 cases in Hospital.

ENTERIC FEVER.—There were 2 males in Hospital at the beginning of the year and 16 fresh cases (6 males and 10 females) were admitted. Of these cases 6 males and 3 females were discharged convalescent, 1 male and 4 females died, and 1 male and 3 females remained in at the end of 1908. The fatal cases had an average stay of 13.4 days. The male convalescent cases had an average stay of 60 days, and the females of 46.5 days.

DIPHTHERIA.—6 cases of this disease (4 males and 2 females) remained in at the end of 1907. During 1908 there were admitted 80 fresh cases (29 males and 51 females). 7 males and 3 females died, 4 males and 10 females remained at the end of 1908, and the others were discharged convalescent during the year. The average stay in Hospital of the convalescent cases was 41.77 days for the males and 44.5 days for the females; for the fatal cases it was 9.25 days for the males, and 4.66 days for the females.

SCARLET FEVER.—During the year 69 cases (33 males and 36 females) were admitted, 67 of these cases (31 males and 36 females) were discharged convalescent, 2 males died and 8 males and 2 females remained at the end of 1908. The average stay in Hospital of the convalescent cases was 56 days for the males and 55.5 days for the females; of the fatal cases it was 20 days for males; no females died.

Disease.	Sex.	Remaining in at end of 1907.	Admitted during 1908.	Recovered.	Died.	Average stay of recoveries.	Average stay of deaths.	Remaining in at end of 1908.
Scarlet Fever	M	11	33	31	2	56	20	8
	F	11	36	36	0	55·5	...	2
Diphtheria	M	4	29	22	7	41·77	9·25	4
	F	2	51	48	3	44·5	4·66	10
Enteric Fever	M	2	6	6	...	60	...	1
	F	0	10	6	4	46·5	9·25	3
Total ...	...	30	165	149	16	...	...	28

The permanent nursing staff now consists of a matron, six staff nurses and three probationers.

The Dawber Charity Committee has granted a sum of £250 per annum for the supply of three nurses to do district work amongst those cases of infectious disease which for various reasons cannot be removed to Hospital.

An extension of the present administrative block has been completed, and, sufficient accommodation is now provided for the Dawber Nurses, who commenced their work in the month of March.

Up to the end of December 40 new cases were undertaken; 1,041 visits paid, and 31 nights were spent at the houses of patients during critical illness.

The Iron Pavilion was destroyed by fire in June, and the re-erection of a new diphtheria block has been commenced. It is hoped that it will be opened during the coming summer.

MIDWIVES' ACT.—The names of six midwives are entered on the midwives' roll for practising in Lincoln. Their outfits have been inspected from time to time by your medical officers, and may be considered satisfactory. Notice of intention to practice must be given in January of each year. This rule is apparently not sufficiently observed by all midwives. It is well to point out that no woman can practice midwifery after April 1, 1910, unless her name is on the midwives roll; at present several uncertified women are practising midwifery in Lincoln, and until next year they can do so provided they do not call themselves "midwives."

DAIRIES, COWSHEDS AND MILKSHOPS.—These have been kept under supervision and have been regularly visited during the year. There are 49 cowsheds on the register, being an increase of one compared with 1907. 14 more dairies or milkshops have been registered, making up the number of places where milk is stored for sale, to 58. Some of the milkshops sell only sterilized milk in sealed bottles, but in others the vendors persist in keeping the milk open on the counter. This practice must be dangerous, as the milk is certain to collect dust and sometimes also germs of disease. I have pointed this out to the vendors repeatedly, and I am pleased to say that in almost every instance they have arranged to keep the milk in some place specially set apart for the purpose.

There is a gradual improvement in the cleanliness of the milk sold. It is only by the greatest care, both in milking and in the handling of milk vessels, that this food can be kept free from contamination. The dust of a cowshed will find its way into the milk can, and when this dust contains tubercle bacilli, as is likely according to the last interim report of the Royal Commission on Tuberculosis, the danger is obvious.

The report referred to states:—

"In our second Interim Report we expressed the opinion, as a result of our investigations, that a very considerable amount of disease and loss of life, especially among infants and children, must be attributed to the consumption of cow's milk containing tubercle bacilli.

"Tuberculosis involving the udder is comparatively common in cows, and in such cases their milk always contains tubercle bacilli and is therefore dangerous for human beings consuming it. It was, however, undecided what is the danger, if any, attaching to the milk of tuberculous cows in which the udder presents no evidence of disease. We therefore took the opportunity of making a number of observations and experiments bearing on this point. The experiments were made with the milk of cows which had contracted the disease in a natural way.

We found that the milk of the cows obviously suffering from tuberculosis contained tubercle bacilli whether the milk was obtained in the ordinary way or was withdrawn from the teat by means of a sterilised catheter. The presence of tubercle bacilli in the milk of cows clinically recognisable as tuberculosis, confirms the opinion we expressed in our second Interim Report that the milk of such cows must be considered dangerous for human beings.

The experiments which we have carried out, with regard to the infectivity of the faeces of tuberculous cows, were dictated by knowledge of the fact that dirt of various kinds from cows and the cowshed is almost constantly present in milk as it reaches the consumer. Cows suffering from extensive tuberculosis of the lungs must discharge considerable numbers of bacilli from the air passages in the act of coughing, and some of the bacilli thus expelled may find their way into the milk. But our experiments indicate that the excrement of cows obviously suffering from tuberculosis of the lungs or alimentary canal must be regarded as much more dangerous than the matter discharged from the mouth or nostrils. We have found that even in the case of cows with slight tuberculous lesions, tubercle bacilli in small numbers are discharged in the faeces, while as regards cows clinically tuberculous our experiments show that the faeces contain large numbers of living and virulent tubercle bacilli.

The presence of tuberculous cows in company with healthy cows in the cowshed is therefore distinctly dangerous, as some of the tubercle bacilli which escape from their bodies in the excrement are almost certain to find their way into the milk."

RAINFALL.

1908.	Total depth in inches.	Greatest daily fall.		No. of rainy days.
		Depth.	Date.	
January	1·00	·25	6th	20
February	1·81	·33	15th	17
March	2·14	·53	25th	22
April	2·69	·72	25th	20
May	2·21	·63	6th	15
June	1·39	·35	1st	9
July	2·56	·54	8th	14
August	1·97	·45	31st	12
September	1·55	·30	3rd	14
October	·85	·34	16th	14
November	1·11	·33	13th & 21st	10
December	1·47	·31	15th	22
Total, 1908	20·75			189
Total, 1907	24·47			198

RAINFALL, 1888 to 1908.

Year.	Inches.	Year.	Inches.	Year.	Inches.	Year.	Inches.
1889	26 88	1894	25·50	1899	22·57	1904	19 72
1890	20 22	1895	24·27	1900	27·01	1905	18·22
1891	27 50	1896	26·52	1901	23·01	1906	23·53
1892	27·65	1897	26·29	1902	21·43	1907	24·47
1893	18·14	1898	20·59	1903	29·53	1908	20·75

Year.	Estimated Population.	Births.			Deaths.			Deaths in Public Institutions.	Birth Rate per 1000 of Population.	Death Rate per 1000 of Population.	Death Rate exclusive of Deaths in Public Institutions.	Deaths from Zymotic Diseases.	Deaths from Diseases of Respiratory Organs except Phthisis.	Deaths from Phthisis.	Deaths under 5 years.	Percentage of Total Deaths.	Deaths under 1 year.	Percentage of Total Deaths.	Deaths of Infants per 1000 Births.	Zymotic Death Rate.
		Male.	Female.	Total.	Male.	Female.	Total.													
1898	44,514	595	575	1170	398	388	786	108	28	17·6	15·2	102	96	56	293	·37	212	·26	181	2·30
1899	44,931	657	630	1287	408	382	790	88	28·6	17·5	15·6	67	109	55	244	·31	201	·25	156	1·49
1900	45,348	600	654	1254	453	419	872	119	27·6	19·2	16·6	77	142	60	282	·32	194	·22	154	1·69
1901	48,784	649	619	1268	421	368	784	115	25·8	16·0	13·6	77	112	58	248	·31	181	·28	142	1·57
1902	49,694	626	622	1248	405	364	769	110	25	15·4	13·2	48	121	64	228	·29	145	·19	116	·96
1903	50,423	655	605	1261	413	387	800	124	25	15·8	13·4	61	88	65	269	·33	177	·22	140	1·20
1904	51,152	653	623	1276	425	391	816	130	25	16·0	13·4	73	107	49	274	·33	208	·25	163	1·48
1905	51,882	667	602	1269	524	438	962	208	24·5	18·5	14·5	206	96	49	259	·27	185	·19	145	4·20
1906	52,611	723	687	1410	449	428	877	169	26·8	16·7	13·5	102	107	51	292	·33	208	·23	147	1·93
1907	53,341	636	641	1277	436	371	807	151	24	15·0	12·3	71	117	68	207	·25	142	·17	111	1·33
1908	54,017	696	646	1342	411	356	767	162	24·8	14·2	13·5	48	90	68	168	·22	132	·17	93·5	·832

City and County Borough of Lincoln.

THE

Sanitary Inspector's Report.

To the Chairman and Members of the Health Committee.

Gentlemen,

I have the pleasure to submit for your consideration my Report on the operations of the Sanitary Department for the year ended December 31st, 1908.

Your obedient servant,

J. K. CRAWSHAW.

Health Department,
Lincoln,
May, 1909.

SANITARY DEPARTMENT.

SUMMARY OF INSPECTORS' WORK FOR 1908.

Statutory Notices served	0
Preliminary Notices served	414
Preliminary Notices complied with	364
Preliminary Notices outstanding	50
Drains tested	759
Drains found defective	260
Defective W.C. basins	98
Defective W.C. cisterns	107
Manholes provided with iron covers	127
Foul catch pits abolished	3
Choked drains cleansed	333
Defective eaves and down spouts	109
Defective roofs	51
Defective floors repaired and relaid	19
Yards paved and asphalted	85
Fowls kept in dirty condition and abolished	95
Pig sties inspected	217
Pig sties found dirty	89
Pig sties abolished	59
Loads of manure removed	60
Houses inspected	1322
Houses found dirty and cleansed	37
Visits to cowsheds	153
,, ,, ice cream shops	26
,, ,, Canal boats	59
,, ,, Workshops and factories	327
,, ,, Outworkers	90
,, ,, Bakehouses	148
,, ,, Common Lodging houses	338
,, ,, Gipsy vans	30
,, ,, Living vans at the Fair	90
,, ,, Public Abattoir	150
,, ,, Private slaughter houses	900
Privy vaults abolished	98
Privy boxes abolished	59
New W.C.s provided	194
Ashpits abolished	73
New Ash bins provided	228
Cases of infectious disease investigated	407
Cases of infectious disease re-visited	444
Cases of infectious disease removed to Hospital	167
Cases of deaths from Phthisis investigated	40
Cases of deaths under one year investigated	95
Cases of measles visited	17
Premises disinfected	518
Railway Vans disinfected	2

COMMON LODGING HOUSES.—There are five common lodging houses on the register, with accommodation for 168 persons. 350 visits have been paid to them during the year. At race times and fair times visits are made daily, and one of the men goes round every morning with disinfectants to flush out the drains and sanitary conveniences. At these times the lodging houses are all overcrowded, but, by constant supervision and the assistance of the lodging house keepers, we have had neither nuisance, infectious disease nor complaint.

The registered Common Lodging Housekeepers are :

Joseph Smith,	27, Waterside North,	with	accommodation	for	16	lodgers.
John Austin,	2, Thorngate,	„	„	„	38	„
Chas. Austin,	33, Waterside North,	„	„	„	54	„
Chas. Lilly,	31, Waterside South,	„	„	„	53	„
Edwin Holland,	14, Waterside North,	„	„	„	7	„

CANAL BOATS.—During 1908 fifty-nine inspections have been made of canal boats, and the following infringements of the Acts and Regulations have been noted.

Boats not exhibiting registration number	3
Boats not carrying registration papers	3
Boats requiring cleansing and painting	3
Boats requiring repairs	1
Total ...	10

Our requests have been complied with in everything except the carrying of registration papers, and the owner of the boats in question has promised to supply all his men with papers.

There has been no infectious disease on any of the Canal Boats.

Five boats have been registered during the year, and there are now 74 on the register.

FACTORY AND WORKSHOP ACTS.—The statistical tables given below show the details of inspections under the Act during the year.

I.—INSPECTION.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories ...	74	...	...
Workshops ...	253	...	...
Bakehouses ...	148	...	...

II.—DEFECTS FOUND.

PARTICULARS.	NUMBER OF DEFECTS.			No. of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
Want of Cleanliness	28	28	...	...
„ „ Ventilation	1	1	...	...
Overcrowding	3	3	...	...
Sanitary Accommodation : –				
(*a*) Insufficient	3	1	...	...
(*b*) Defective	...	...	...	...
(*c*) Not separate for sexes ...	...	...	...	...
Breach of Sanitary requirements for Bakehouses	20	19	...	...

III.—HOMEWORK.

Nature of Work.	Lists received from Employers.				No. of Inspections of Outworkers' Premises.
	Twice in the Year.		Once in the Year.		
	Lists.	Outworkers.	Lists.	Outworkers.	
Making Wearing Apparel ...	21	198	2	9	90

IV.—REGISTERED WORKSHOPS.

Number of bakehouses on register	58
Number of other Workplaces	228
Total	286

BAKEHOUSES.—The bakehouses on the register number 58, and 148 visits have been paid to them. Three new ones have been opened, and one abolished during the year.

The following defects were found:—

Nature of defects.	Number found.	Number remedied.
Manure close to bakehouse ...	4	4
Pigs close to bakehouse ...	1	1
Stable close to bakehouse ...	2	1
Dirty Bakehouse	6	6
Dirty W.C.	1	1
Top not limewashed	3	3
Insufficient light	2	2
Bad floor	1	1

In one case the place had become so dilapidated that the stable ventilated into the bakehouse, and it was only after several visits by Dr. Harrison, Dr. Rees Jones and myself that the bakehouse was put in order

MEAT AND FOOD.—During the year there has been destroyed as unfit for human food:—

	st.	lbs.
7 Cows	281	
2 Bulls	80	
1 Heifer	45	
1 Bullock	40	
Beef not in carcase	95	
12¼ Sheep	54	
1 Calf	3	
874 Rabbits	89	6
36 Pigs	506	11
Pork not in carcase	149	8
Offals	80	
Fish	121	
Fruit	3	
	1547	11

Of 23 cows	found	to	be	tuberculous,	6	were	wholly seized.
,, 4 bulls	,,	,,	,,		2	,,	,, ,,
,, 10 bullocks	,,	,,	,,		0	,,	,, ,,
,, 1 heifer	,,	,,	,,		1	was	,, ,,
,, 64 pigs	,,	,,	,,		27	were	,, ,,

Nearly all the meat seized was reported by the butchers for examination, and my thanks are due to them for the assistance they have given me in this branch of my duties.

There have been no prosecutions during the year.

There were 24 private slaughter houses on the books at the beginning of the year, but two of them, occupied respectively by Mr. J. R. Charles and Mr. C. Warner, have been discontinued, leaving 22 in use at the end of the year. Of these only 7 can be said to be good.

The Abattoir has been conducted in the usual efficient manner.

In November a deputation from the Butchers' Association attended the Health Committee with reference to the inspection of pigs in the City. They made the statement that the standard of inspection in the City is higher than in the surrounding districts, and though they did not complain of any injustice yet they wished the Committee to assist them in securing uniformity of inspection throughout the country.

As a result of the Deputation the Committee requested Dr. Coleman and myself to report on the method and standards adopted in other towns. We communicated with some 40 towns and 27 replies were received; these were embodied in a report submitted to the Committee on January 11th, 1909, a copy of which is here appended.

(Copy of Report.)

Health Department, Lincoln,

January 11th, 1909.

THE CHAIRMAN AND MEMBERS OF THE HEALTH COMMITTEE.

Gentlemen,

As requested by you at the last Committee we have obtained information from other towns in regard to inspection and seizure of tuberculous pigs.

Reports on this subject have been received from 27 towns.

Two were inconclusive.

Thirteen state that they follow the Memorandum of Local Government Board, and seize the whole carcase if tubercle is present in any degree.

There is some room for doubt whether the inspection has been thoroughly carried out in all these cases.

The report from Derby, which is included in the above thirteen, shows that only one carcase was seized in 1907.

In Cambridge no seizure was made during the same year, although the same system obtains.

Tuberculosis in pigs is unfortunately sufficiently prevalent to justify the assumption that, in these towns, affected carcases must occasionally escape detection.

In Lincoln, during 1907, the carcases of 64 pigs were found on inspection to be tuberculous, but 25 only were destroyed.

The remaining twelve towns do not profess to be very strict in their inspection, but nevertheless some of the reports received show a fair number of seizures, as instanced by Reading, Birmingham, Wakefield and Bedford.

In Sheffield, however, where the population approaches half a million the total seizures during the past 3 years are practically nil.

The gist of the replies received is tabulated on the accompanying sheet.

Town.	Population	No. of pigs condemned for tubercle per annum.	Do you seize the whole pig when tubercle is present in any degree as recommended by L.G.B. Memorandum.	Replies Received from. *
Bedford	... 40,000	15 in 1908.	No.	S.I.
Birmingham	.. 558,357	279 (16 per cent. of pigs slaughtered).	No.	M.O.H.
Blackpool	... 59,741	13 in 1907, 6 in 1906.	No.	M.O.H.

* S.I. Sanitary Inspector. M.O.H. Medical Officer of Health.

Town.	Population	No. of pigs condemned for tubercle per annum.	Do you seize the whole pig when tubercle is present in any degree as recommended by L.G.B. Memorandum.	Replies Received from. *
Burton... ...	53,000	?	Yes	M.O.H.
Cambridge ...	40,118	None.	I should do so.	M.O.H.
Carlisle ...	50,000	7 in 1905, 10 in 1906, 2 in 1907.	Yes.	S I.
Cheltenham ..	50,000	12 in 1907.	Invariably, unless disease is very slight.	S.I.
Derby	127,000	1.	Yes.	M.O.H.
Doncaster ...	31,183	4.	No.	M.O.H.
Grantham ...	18,000	Rarely discovered.	This is recommended.	M.O.H.
Grimsby ...	71,220	3 in 1908.	Yes.	M.O.H.
Halifax ...	108,000	17 in 1907, 6989 slaughtered.	No.	M.O.H.
Handsworth ...	52,921	None for several years. Pigs mostly slaughtered in Birmingham.	Yes.	M.O.H.
Hereford ...	21,382	None.	?	S.I.
Hull	271,137	109 in 1906, 93 in 1907.	Yes.	M.O.H.
Ipswich ...	73,852	5.	Yes.	M.O.H.
Kidderminster	25,000	Several.	No.	S.I.
Leicester ...	240,000	12.	No.	M.O.H.
Mansfield ...	32,500	Very few.	Yes.	M.O.H.
Newark ...	16,400	No report kept.	Yes.	S.I.
Nottingham ...	260,449	From 12 to 20.	Yes.	M.O.H.
Reading ...	82,549	56 in 1907.	No.	M.O.H.
Sheffield ...	463,222	1 in 1905, 0 in 1906, 1 in 1907.	No.	M.O.H.
Wakefield ..	43,000	12 in 1907, 17 in 1908.	No.	S.I.
West Bromwich	69,175	?	No.	S.I.
Wolverhampton	103,535	10 (average)	No.	M.O.H.
York	85,861	5 in 1906, none in 1907-8.	Yes.	S.I.

* S.I. Sanitary Inspector. M.O.H. Medical Officer of Health.

C. J. COLEMAN.

J. K. CRAWSHAW,

SALE OF FOODS AND DRUGS ACTS.—During the year 54 samples were taken under the sale of Foods and Drugs Acts:—

New Milk	34
Skimmed Milk	4
Brandy	1
Whiskey	4
Gin	1
Margarine	1
Butter	5
Olive Oil	1
Preserved Damsons	1
Preserved Beans	1
Lard	1
	54

Seven samples were adulterated, being 12.96 per cent. of the whole.

No. 3 was new milk giving an analysis of S.N.F. 7.22,* Fat 3 75 and showing 15.06 per cent. of added water. It will be noticed that the fat is well above the standard, and the case was dropped by the order of the Committee.

No. 12.—New milk, showed an analysis S.N F. 7.76,* Fat 2.59, having added water 8.71 per cent. and also being deficient in fat to the extent of 5.67 per cent. The vendor had just commenced to sell a small quantity of milk from his own house, and on his undertaking to give up the business the case was not proceeded with.

No. 16 was skimmed milk, and the analysis showed 31.13 per cent. of added water. Proceedings were instituted, and the vendor fined £1 and £1 1s. costs.

No. 23 was also skimmed milk, and the analysis showed 15.34 per cent. of added water. The vendor in this case was fined £1 including costs.

No. 29 was a butter purchased in the butter market. The analysis read:—Water, 11.64; butter fat, 75.92; casein, 2.52; salt, 9.92; total, 100.00., and being 4 per cent. deficient in fat and having 5 per cent. too much salt. No action was taken.

* S.N.F. Solids not fat,

No. 36 was new milk showing S.N.F. 8.04,* Fat. 2.75, having added water 5.42 and being 3.34 per cent. deficient in fat. The case was heard on May 29th, and followed the hearing of a case for obstruction in which the same man was fined £2. The case of adulteration of milk was dismissed on payment of costs.

The number of samples analysed, 54, is only about half the number usually taken in Lincoln. The death of Mr. James Baynes, F.I.C., of Hull, left us without an official analyst from July to the middle of December, when Dr. E. M. Chaplin,P.H.D., F.I.C., was appointed.

Dr. Rees Jones analysed six samples of milk unofficially, but as proceedings could not be instituted if anything was found to be adulterated, nothing further was done until Dr. E. M. Chaplin was appointed.

PROSECUTIONS, 1908.

March 27th.—Skimmed milk with 15.34 per cent. of added water.

Fined ...	...	£1 0 0 including costs.

March 27th.—Skimmed milk with 31.12 per cent. of added water.

Fined ...	...	£1 0 0
Costs ...	...	£1 1 0
		£2 1 0

March 29th.—Obstructing Officer in course of his duty.

Fined ...	...	£2 0 0 including costs.

New milk with 5.42 per cent. of added water.

Costs ...	...	£0 9 0

June 12th.—Whiskey 31.46 degrees below proof.

Fined ...	...	£1 0 0
Costs ...	...	£1 15 0
		£2 15 0

S.N.F. Solids not fat.

QUANTITY OF SEWAGE PUMPED DURING 1908.

1908.		Sewage pumped in gallons.
January	... ...	53,242,840
February	... ...	47,266,045
March	... ...	62,034,770
April	... ...	56,469,235
May	... ...	59,666,920
June	... ...	49,763,855
July	... ...	53,015,770
August	... ...	48,509,460
September	... ...	45,754,895
October	... ...	43,993,700
November	... ...	39,020,515
December	... ...	41,807,270
	Total ...	600,545,275